

IDAHO CONTENT STANDARDS  
GRADE 6  
SCIENCE

Standard 1: Nature of Science

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7
Goal 1.1: Understand Systems, Order, and Organization	6.S.1.1.1 Analyze different systems. (618.01.a)						
Goal 1.2: Understand Concepts and Processes of Evidence, Models, and Explanations	6.S.1.2.1 Explain how observations and data are used as evidence on which to base scientific explanations and predictions. (618.02.a)	6.S.1.2.2 Use observations to make inferences. (618.02.b)	6.S.1.2.3 Use models to explain or demonstrate a concept. (618.02.c)				
Goal 1.3: Understand Constancy, Change, and Measurement	6.S.1.3.1 Analyze changes that occur in and among systems. (618.03.b)	6.S.1.3.2 Measure in both U.S. Customary and International System of Measurement (metric system) units with an emphasis on the metric system. (618.03.c)					
Goal 1.4: Understand the Theory that Evolution is a Process that Relates to the Gradual Changes in the Universe and of Equilibrium as a Physical State	No objectives at this grade level.						
Goal 1.5: Understand Concepts of Form and Function	6.S.1.5.1 Analyze how the shape or form of an object or system is frequently related to its use and/or function. (618.05.a)						
Goal 1.6: Understand Scientific Inquiry and Develop Critical Thinking Skills	6.S.1.6.1 Write and analyze questions that can be answered by conducting scientific experiments. (619.02.a)	6.S.1.6.2 Conduct scientific investigations using a control and variables. Repeat same experiment using alternate variables. (619.02.b)	6.S.1.6.3 Select and use appropriate tools and techniques to gather and display data. (619.02.c)	6.S.1.6.4 Use evidence to analyze data in order to develop descriptions, explanations, predictions, and models. (619.2.d)	6.S.1.6.5 Test a hypothesis based on observations. (619.02.e)	6.S.1.6.6 Communicate scientific procedures and explanations. (619.02.g)	
Goal 1.7: Understand That Interpersonal Relationships Are Important in Scientific Endeavors	No objectives at this grade level.						
Goal 1.8: Understand Technical Communication	6.S.1.8.1 Read, give, and execute technical instructions. (628.01a)						

IDAHO CONTENT STANDARDS  
GRADE 6  
SCIENCE

Standard 2: Physical Science

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7
Goal 2.1: Understand the Structure and Function of Matter and Molecules and Their Interactions	6.S.2.1.1 Compare and contrast the differences among elements, compounds and mixtures. (620.01.a)	6.S.2.1.2 Define the properties of matter. (620.01.b)	6.S.2.1.3 Compare densities of equal volumes of a solid, a liquid, or a gas. (619.01.c)	6.S.2.1.4 Describe the effect of temperature on density. (620.01.c)	6.S.2.1.5 Explain the nature of physical change and how it relates to physical properties (the distance between molecules as water changes from ice to liquid water, and to water vapor). (620.01.d)		
Goal 2.2: Understand Concepts of Motion and Forces	6.S.2.2.1 Describe the effects of different forces (gravity and friction) on the movement, speed, and direction of an object. (620.03.d)						
Goal 2.3: Understand the Total Energy in the Universe is Constant	No objectives at this grade level.						
Goal 2.4: Understand the Structure of Atoms	No objectives at this grade level.						
Goal 2.5: Understand Chemical Reactions	No objectives at this grade level.						

Standard 3: Biology

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7
Goal 3.1: Understand the Theory of Biological Evolution	No objectives at this grade level.						
Goal 3.2: Understand the Relationship between Matter and Energy in Living Systems	No objectives at this grade level.						
Goal 3.3: Understand the Cell is the Basis of Form and Function for All Living Things	6.S.3.3.1 Identify the different structural levels of which an organism is comprised (cells, tissues, organs, organ systems, and organisms). (621.01.a)	6.S.3.3.2 Analyze the structural differences between plant and animal cells. (621.01.b)	6.S.3.3.3 Describe how traits are passed from parents to offspring. (621.01.c)				

Standard 4: Earth and Space Systems

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7
Goal 4.1: Understand Scientific Theories of Origin and Subsequent Changes in the Universe and Earth Systems	6.S.4.1.1 Explain the interactions among the solid earth, oceans, atmosphere, and organisms. (624.01.a)	6.S.4.1.2 Explain the water cycle and its relationship to weather and climate. (624.01.b)	6.S.4.1.3 Identify cumulus, cirrus, and stratus clouds and how they relate to weather changes. (624.01.c)				
Goal 4.2: Understand Geo-chemical Cycles and Energy in the Earth System	No objectives at this grade level.						

IDAHO CONTENT STANDARDS  
GRADE 6  
SCIENCE

**Standard 5: Personal and Social Perspectives; Technology**

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7
<b>Goal 5.1: Understand Common Environmental Quality Issues, Both Natural and Human Induced</b>	6.S.5.1.1 Identify issues for environmental studies. <a href="#">(626.01.a)</a>						
<b>Goal 5.2: Understand the Relationship between Science and Technology</b>	6.S.5.2.1 Describe how science and technology are part of our society. <a href="#">(625.01.a)</a>	6.S.5.2.2 Describe how science and technology are interrelated. <a href="#">(625.01.b)</a>					
<b>Goal 5.3: Understand the Importance of Natural Resources and the Need to Manage and Conserve Them</b>	6.S.5.3.1 Explain the difference between renewable and nonrenewable resources. <a href="#">(626.03.a)</a>						

IDAHO CONTENT STANDARDS  
GRADE 7  
SCIENCE

Standard 1: Nature of Science

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7
Goal 1.1: Understand Systems, Order, and Organization	7.S.1.1.1 Define small systems as a part of a whole system. (633.01.a)	7.S.1.1.2 Determine how small systems contribute to the function of the whole. (633.01.a)	7.S.1.1.3 Identify the different structural levels of an organism (cells, tissues, organs, and organ systems). (633.01.b)				
Goal 1.2: Understand Concepts and Processes of Evidence, Models, and Explanations	7.S.1.2.1 Describe how observations and data are evidence on which to base scientific explanations and predictions. (633.02.a)	7.S.1.2.2 Use observations to make defensible inferences. (633.02.b)	7.S.1.2.3 Use models to explain or demonstrate a concept. (633.02.c)				
Goal 1.3: Understand Constancy, Change, and Measurement	7.S.1.3.1 Identify concepts of science that have been stable over time. (633.03.a)	7.S.1.3.2 Recognize changes that occur within systems. (633.03.b)	7.S.1.3.3 Make metric measurements using appropriate tools. (633.03.c)				
Goal 1.4: Understand the Theory that Evolution is a Process that Relates to the Gradual Changes in the Universe and of Equilibrium as a Physical State	Reference to objective 7.S.3.2.1						
Goal 1.5: Understand Concepts of Form and Function	No objectives at this grade level.						
Goal 1.6: Understand Scientific Inquiry and Develop Critical Thinking Skills	7.S.1.6.1 Identify controls and variables used in scientific investigations. (634.01.b)	7.S.1.6.2 Use appropriate tools and techniques to gather and display data. (634.01.c)	7.S.1.6.3 Evaluate data in order to form conclusions. (634.01.d)	7.S.1.6.4 Use evidence and critical thinking to accept or reject a hypothesis. (634.01.e)	7.S.1.6.5 Evaluate alternative explanations or predictions. (634.01.f)	7.S.1.6.6 Communicate and defend scientific procedures and explanations. (634.01.g)	
Goal 1.7: Understand That Interpersonal Relationships Are Important in Scientific Endeavors	No objectives at this grade level.						
Goal 1.8: Understand Technical Communication	7.S.1.8.1 Read and evaluate technical instructions. (643.02.a)						

Standard 2: Physical Science    No goals or objectives at this grade level.

Standard 3: Biology

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7
Goal 3.1: Understand the Theory of Biological Evolution	7.S.3.1.1 Describe how natural selection explains species change over time. (637.01.a)						
Goal 3.2: Understand the Relationship between Matter and Energy in Living Systems	7.S.3.2.1 Describe how energy stored in food is primarily derived from the sun through photosynthesis. (638.01.a)	7.S.3.2.2 Describe how the availability of resources (matter and energy) limits the distribution and abundance of organisms. (638.01.b)	7.S.3.2.3 Illustrate how atoms and molecules cycle among the living and nonliving components of the biosphere. (638.01.c)	7.S.3.2.4 Identify how energy flows through ecosystems in one direction, from photosynthetic organisms to herbivores, carnivore, and decomposers. (638.01.d)			
Goal 3.3: Understand the Cell is the Basis of Form and Function for All Living Things	7.S.3.3.1 Explain the relationships among specialized cells, tissues, organs, organ systems, and organisms. (636.01.a)	7.S.3.3.2 Identify the parts of specialized plant and animal cells. (636.01.b)	7.S.3.3.3 Identify the functions of cell structures. (636.01.b)	7.S.3.3.4 Describe cell functions that involve chemical reactions. (630.01.c)	7.S.3.3.5 Describe how dominant and recessive traits are inherited. (636.01.e)		

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**Standard 4: Earth and Space Systems**    No goals or objectives at this grade level.

IDAHO CONTENT STANDARDS  
GRADE 7  
SCIENCE

**Standard 5: Personal and Social Perspectives; Technology**

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7
Goal 5.1: Understand Common Environmental Quality Issues, Both Natural and Human Induced	No objectives at this grade level.						
Goal 5.2: Understand the Relationship between Science and Technology	7.S.5.2.1 Explain how science and technology are interrelated. (640.01.a)	7.S.5.2.2 Explain how science advances technology. (640.01.b)					
Goal 5.3: Understand the Importance of Natural Resources and the Need to Manage and Conserve Them	7.S.5.3.1 Identify alternative sources of energy. (641.03.a)						

IDAHO CONTENT STANDARDS  
GRADE 8-9  
PHYSICAL SCIENCE

Standard 1: Nature of Science

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7
Goal 1.1: Understand Systems, Order, and Organization	8-9.PS.1.1.1 Explain the scientific meaning of system, order, and organization. (648.01a)	8-9.PS.1.1.2 Apply the concepts of order and organization to a given system. (648.01a)					
Goal 1.2: Understand Concepts and Processes of Evidence, Models, and Explanations	8-9.PS.1.2.1 Use observations and data as evidence on which to base scientific explanations. (648.02a)	8-9.PS.1.2.2 Develop models to explain concepts or systems. (648.02b)	8-9.PS.1.2.3 Develop scientific explanations based on knowledge, logic, and analysis. (648.02c)				
Goal 1.3: Understand Constancy, Change, and Measurement	8-9.PS.1.3.1 Measure changes that can occur in and among systems. (648.03b)	8-9.PS.1.3.2 Analyze changes that can occur in and among systems. (648.03b)	8-9.PS.1.3.3 Measure and calculate using the metric system. (648.03c)				
Goal 1.4: Understand the Theory that Evolution is a Process that Relates to the Gradual Changes in the Universe and of Equilibrium as a Physical State	No objectives in Physical Science.						
Goal 1.5: Understand Concepts of Form and Function	No objectives in Physical Science.						
Goal 1.6: Understand Scientific Inquiry and Develop Critical Thinking Skills	8-9.PS.1.6.1 Identify questions and concepts that guide scientific investigations. (649.01a)	8-9.PS.1.6.2 Utilize the components of scientific problem solving to design, conduct, and communicate results of investigations. (649.01b)	8-9.PS.1.6.3 Use appropriate technology and mathematics to make investigations. (649.01c)	8-9.PS.1.6.4 Formulate scientific explanations and models using logic and evidence. (649.01d)	8-9.PS.1.6.5 Analyze alternative explanations and models. (649.01e)	8-9.PS.1.6.6 Communicate and defend a scientific argument. (649.01f)	8-9.PS.1.6.7 Explain the differences among observations, hypotheses, and theories. (649.01g)
Goal 1.7: Understand That Interpersonal Relationships Are Important in Scientific Endeavors	No objectives in Physical Science.						
Goal 1.8: Understand Technical Communication	8-9.PS.1.8.1 Analyze technical writing, graphs, charts, and diagrams. (658.02a)						

Standard 2: Physical Science

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7
Goal 2.1: Understand the Structure and Function of Matter and Molecules and Their Interactions	No objectives in Physical Science.						
Goal 2.2: Understand Concepts of Motion and Forces	8-9.PS.2.2.1 Explain motion using Newton’s Laws of Motion. (650.04b)						
Goal 2.3: Understand the Total Energy in the Universe is Constant	8-9.PS.2.3.1 Explain that energy can be transformed but cannot be created nor destroyed. (650.05a)	8-9.PS.2.3.2 Classify energy as potential and/or kinetic and as energy contained in a field. (650.05b)					
Goal 2.4: Understand the Structure of Atoms	8-9.PS.2.4.1 Describe the properties, function, and location of protons, neutrons, and electrons. (650.01a)	8-9.PS.2.4.2 Explain the processes of fission and fusion. (650.01b)	8-9.PS.2.4.3 Describe the characteristics of isotopes. (650.01c)	8-9.PS.2.4.4 State the basic electrical properties of matter. (650.01d)	8-9.PS.2.4.5 Describe the relationships between magnetism and electricity.		

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Goal 2.5: Understand Chemical Reactions	8-9.PS.2.5.1 Explain how chemical reactions may release or consume energy while the quantity of matter remains constant. <a href="#">(650.03a)</a>						
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IDAHO CONTENT STANDARDS  
GRADE 8-9  
PHYSICAL SCIENCE

**Standard 3: Biology**    No goals or objectives in Physical Science.

**Standard 4: Earth and Space Systems**    No goals or objectives in Physical Science.

**Standard 5: Personal and Social Perspectives; Technology**

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7
Goal 5.1: Understand Common Environmental Quality Issues, Both Natural and Human Induced	No objectives in Physical Science.						
Goal 5.2: Understand the Relationship between Science and Technology	8-9.PS.5.2.1 Explain how science advances technology. (655.01a)	8-9.PS.5.2.2 Explain how technology advances science. (655.01a)	8-9.PS.5.2.3 Explain how science and technology are pursued for different purposes. (656.01b)				
Goal 5.3: Understand the Importance of Natural Resources and the Need to Manage and Conserve Them	No objectives in Physical Science.						

IDAHO CONTENT STANDARDS  
GRADE 8-9  
EARTH SCIENCE

Standard 1: Nature of Science

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7
Goal 1.1: Understand Systems, Order, and Organization	8-9.ES.1.1.1 Explain the scientific meaning of system, order, and organization. (648.01a)	8-9.ES.1.1.2 Apply the concepts of order and organization to a given system. (648.01a)					
Goal 1.2: Understand Concepts and Processes of Evidence, Models, and Explanations	8-9.ES.1.2.1 Use observations and data as evidence on which to base scientific explanations. (648.02a)	8-9.ES.1.2.2 Develop models to explain concepts or systems. (648.02b)	8-9.ES.1.2.3 Develop scientific explanations based on knowledge, logic, and analysis. (648.02c)				
Goal 1.3: Understand Constancy, Change, and Measurement	8-9.ES.1.3.1 Measure changes that can occur in and among systems. (648.03b)	8-9.ES.1.3.2 Analyze changes that can occur in and among systems. (648.03b)	8-9.ES.1.3.3 Measure and calculate using the metric system. (648.03c)				
Goal 1.4: Understand the Theory that Evolution is a Process that Relates to the Gradual Changes in the Universe and of Equilibrium as a Physical State	No objectives in Earth Science.						
Goal 1.5: Understand Concepts of Form and Function	No objectives in Earth Science.						
Goal 1.6: Understand Scientific Inquiry and Develop Critical Thinking Skills	8-9.ES.1.6.1 Identify questions and concepts that guide scientific investigations. (649.01a)	8-9.ES.1.6.2 Utilize the components of scientific problem solving to design, conduct, and communicate results of investigations. (649.01b)	8-9.ES.1.6.3 Use appropriate technology and mathematics to make investigations. (649.01c)	8-9.ES.1.6.4 Formulate scientific explanations and models using logic and evidence. (649.01d)	8-9.ES.1.6.5 Analyze alternative explanations and models. (649.01e)	8-9.ES.1.6.6 Communicate and defend a scientific argument. (649.01f)	8-9.ES.1.6.7 Explain the differences among observations, hypotheses, and theories. (649.01g)
Goal 1.7: Understand That Interpersonal Relationships Are Important in Scientific Endeavors	No objectives in Earth Science.						
Goal 1.8: Understand Technical Communication	8-9.ES.1.8.1 Analyze technical writing, graphs, charts, and diagrams. (658.02a)						

Standard 2: Physical Science    No goals or objectives in Earth Science.

Standard 3: Biology    No goals or objectives in Earth Science.

Standard 4: Earth and Space Systems

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7
Goal 4.1: Understand Scientific Theories of Origin and Subsequent Changes in the Universe and Earth Systems	8-9.ES.4.1.1 Explain the current scientific theory that suggests that the solar system formed from a nebular cloud of dust and gas. (654.01a)	8-9.ES.4.1.2 Identify methods used to estimate geologic time. (654.01b)	8-9.ES.4.1.3 Show how interactions among the solid earth, oceans, atmosphere, and organisms have changed the earth system over time. (654.01c)				
Goal 4.2: Understand Geo-chemical Cycles and Energy in the Earth System	8-9.ES.4.2.1 Explain the internal and external energy sources of the earth (654.02a)						

IDAHO CONTENT STANDARDS  
GRADE 8-9  
EARTH SCIENCE

**Standard 5: Personal and Social Perspectives; Technology**

Goals:	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7
<b>Goal 5.1: Understand Common Environmental Quality Issues, Both Natural and Human Induced</b>	8-9.ES.5.1.1 Analyze environmental issues such as water and air quality, hazardous waste, and depletion of natural resources. (656.01a)						
<b>Goal 5.2: Understand the Relationship between Science and Technology</b>	8-9.ES.5.2.1 Explain how science advances technology. (655.01a)	8-9.ES.5.2.2 Explain how technology advances science. (655.01a)	8-9.ES.5.2.3 Explain how science and technology are pursued for different purposes. (655.01b)				
<b>Goal 5.3: Understand the Importance of Natural Resources and the Need to Manage and Conserve Them</b>	8-9.ES.5.3.1 Describe the difference between renewable and nonrenewable resources. (656.03a)						